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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,967	08/30/1999	KUNIHIRO YAMAMOTO	862.2991	8547

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EXAMINER

PATEL, KANJIBHAI B

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 06/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/384,967

Applicant(s)
KUNIHIRO YAMAMOTO ET AL.

Examiner
Kanji Patel

Art Unit
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 30, 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hui et al. (US 6,237,010 B1) in view of Murakawa (US 6,249,607 B1)

For claims 1, 10 and 19, Hui et al. provide an image search apparatus for searching an image database that stores a plurality of image data for desired image data (figures 1-2), comprising:

storage means (figure 1, element 16 provides storing means for image data in correspondence with image feature amounts) for storing the plurality of image data in correspondence with image feature amounts of the image data;

input means (figure 7, at least windows 70 provides input window; see column 7, lines 29-46) for inputting an image using input window.

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image feature amount computing means (in figure 12, desired color adjustment of image 107 by selecting color buttons 100 and 109 provide the feature quantity) for computing an image feature amount of the image input by said input means;

image display means (at least figures 8 and 10 provide a list of images displayed on the display) for displaying a list of image data as search results on the basis of the image similarity computed by said image similarity computing means; and

read-out means (steps S301-S304 in figure 3 provide read-out means; images are read from flashpix files 16) for reading out the image data stored in said storage means.

Hui et al. do not specifically disclose image similarity computing means for computing image similarity on the basis of the image feature amount computed by said image feature amount computing means, and the image feature amounts of the image data stored in said storage means as claimed in the limitation. However, calculation of similarity based on feature quantity such as color or shape of the key image comparing with the storage is in database is well known and widely used in image retrieval and in image search apparatus. Murakawa provides a similar image retrieving apparatus including similarity calculating section 6 in figure 1 for calculating a similarity between a key image as a first image and a comparative image as a second image based on the feature quantities of image data derived from the feature quantity extraction section 2 and shown at column 4, lines 32-38. Hui et al. and Murakawa are combinable since they both provide the same field of environment of operation, for image search and similar image retrieval. It would have been obvious to one having ordinary skill in the art at the time of invention to include the

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teaching of Murakawa to modify Hui et al. because it provides a practical similar-image retrieving apparatus, method and program storage media therefor, in which the amount of data for shape comparison can be reduced by digitizing feature quantities of external shape into numerical values while shape comparison can be achieved by simple operation using the digitized feature quantities, in which retrieval is enable even for similar images having a rotated or translated external shape or having a scaled-up or scaled down external shape as shown by Murakawa in column 1 line 60 to column 2 line 2.

For claims 2 and 11, Hui et al. provide the read-out means which reads out one of the image data displayed by said image display means into the input window as shown in figure 7, elements 70-71.

For claims 3 and 12, Hui et al. provide the apparatus wherein said read-out means comprises selection means (figure 3, steps S303-304) for selecting desired image data from the image data displayed by said image display means, and said read-out means reads out the image data selected by said selection means into the input window.

For claims 4 and 13, Hui et al. provide the apparatus wherein said image display means displays image data randomly selected from the image data stored in said storage means (50-55 in figures 4-10 provide randomly selection of image data).

For claims 5 and 14, Hui et al. provide the apparatus wherein said image display means displays designated image data (in figure 5, selection of Album provides designated image data) of the image data stored in said storage means.

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For claims 6 and 15, Hui et al. provide the apparatus wherein said image display means comprises search means (figure 10, button 55) for searching for desired image data by designating attribute information appended to the image data, and when a search is made by said search means, said image display means displays a list of image data (94 in figure 10) found by the search of said search means.

For claims 7 and 16, Hui et al. provide the apparatus wherein the attribute information is a keyword (86 in figure 10).

For claims 8 and 17, Hui et al. provide the apparatus wherein the attribute information is at least one of dates of creation (83 in figure 10), management, and modification of image data.

For claims 9 and 18, Murakawa provides the apparatus further comprising display control means (column 5, lines 4-5) for controlling to display the input window within a display window displayed by said display means.

For claims 20, 29 and 38, see the rejection of claims 1, 10 and 19 above. Designation means for designating a color used in the image is provided by Hui et al. in figure 12, buttons 100, 109.

For claims 21 and 30, Hui et al. provide the apparatus wherein said designation means designates the color (figure 12) used in the image to be drawn by said input means by indicating one pixel in the image data displayed by said image display means.

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For claims 22 and 31, Hui et al. provide the apparatus wherein said designation means designates the color (at least figure 12) used in the image to be drawn by said input means by indicating a predetermined region in the image data displayed by said image display means.

For claims 23 and 32, Hui et al. provide the apparatus wherein the color designated by indicating the predetermined region (column 14, lines 14-27; 10x12 inch provides a predetermined region) is an average value of pixel values contained in the small region.

For claims 24 and 33, Hui et al. provide the apparatus wherein said designation means designates the color (figure 12) used in the image to be drawn by said input means on the basis of image data to be displayed by said image display means.

For claims 25 and 34, Hui et al. provide the apparatus wherein said designation means designates the color 100 in figure 12) used in the image to be drawn by said input means on the basis of image data which corresponds to image data displayed by said image display means, and is stored in said storage means.

For claims 26 and 35, Hui et al. provide the apparatus wherein said designation means designates the color (figure 12) used in the image to be drawn by said input means on the basis of an image drawn on a drawing area (figure 7) used by said input means.

For claims 27 and 36, Murakawa provides the apparatus wherein said image feature amount computing means computes (figure 1, 2 and 5) the image feature amount of the drawn image every time the image is modified by said input means.

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For claims 28 and 37, Murakawa provides the apparatus further comprising display control means (column 5, lines 4-5) for controlling to display the input window within a display window displayed by said image display means.

For claims 39, 44 and 49, see the rejection of at least claims 1, 10 and 19 above. Hui et al. provide selection means for selecting one of a plurality of different input methods selecting different buttons in figures 4-10 by clicking thereon using pointing device 7 as shown in column 6, lines 35-45. input means (elements 16, 27, 34-35 in figure 2 provide input means) for inputting an image using the input method.

For claims 40 and 45, Hui et al. provide the apparatus wherein the input methods include at least a first input method of inputting an image on the basis of image data stored in said storage means (50 in figure 5 corresponds to a storage means), and a second input method of inputting an image on the basis of a color of image data (100 in figure 12) stored in said storage means.

For claims 41 and 46, Hui et al. provide the apparatus wherein the input methods include at least a third input method of inputting an image on the basis of image data stored in said storage means (50 in figure 5 corresponds to a storage means), and a fourth input method of inputting an image on the basis of a color (100 in figure 12) managed by another application.

For claims 42 and 47, Hui et al. provide the apparatus wherein said selection means comprises a pointing device (at least 7 in figure 1) having a plurality of buttons, and

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the plurality of different input methods are assigned to the plurality of buttons (at least 50-55 in figures 4-10), and one of the plurality of different input methods is selected by selecting one of the plurality of buttons.

For claims 43 and 48, Hui et al. provide the apparatus (figures 4-10) wherein said selection means comprises a plurality of buttons formed on an input window (figure 7) displayed by said image display means, and

the plurality of different input methods are assigned to the plurality of buttons (50-55 in figures 4-10), and one of the plurality of different input methods is selected by selecting one of the plurality of buttons (50 in figure 5).

Other prior art cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang et al. (US 5,802,361) discloses a method and system for searching graphic images and videos.

Hirano et al. (US 5,943,054) discloses a function designate method for designating a variety of functions to be performed by a control unit.

Li et al. (US 5,930,783) discloses a semantic and cognition based image retrieval.

Sato et al. (US 6,246,804 B1) discloses an image retrieval method and apparatus using a compound image formed from a plurality of detected regions.

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Contact information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

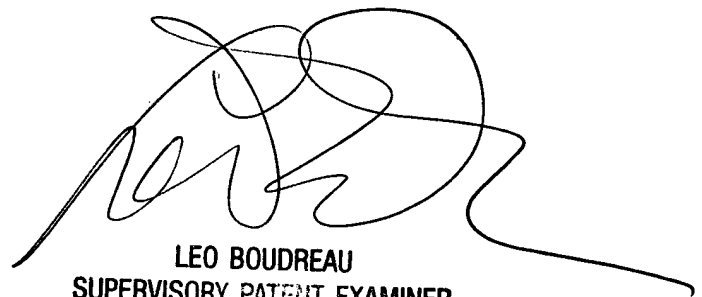
If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached on (703) 305-4706.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703)306-0377.

The fax number for this group is (703)872-9314.



Kanji Patel
Patent Examiner
Group Art Unit 2621
June 14, 2002



LEO BOUDREAU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a)

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.